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10/029,539	12/20/2001	James D. Shaffer	TARINFO.015CP1	4718

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EXAMINER	
HARPER, V PAUL	
ART UNIT	PAPER NUMBER
2626	

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
3 MONTHS	04/13/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 04/13/2007.

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PTONotifications@procopio.com

Office Action Summary	Application No.	Applicant(s)	
	10/029,539	SHAFFER ET AL.	
	Examiner	Art Unit	
	V. Paul Harper	2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 March 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *23-43* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *23-43* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1. Claims 23-28, 33-38 rejected under 35 U.S.C. 103(a) as being unpatentable over Cohen (US Patent 5,524,169), hereinafter referred to as Cohen, in view of Monaco et al. (US Patent 6,314,402), hereinafter referred to as Monaco.

Regarding **claim 23**, Cohen teaches a method for location-specific mobile speech recognition (abstract). Cohen's teachings include the following:

- determining a coordinate location of a mobile device communicating over the communication network (col. 4, lines 5-26; determine the geographic location);
- using the determined coordinate location to obtain a subset of records from a plurality of records; ... [a grammar] responsive to the determined coordinate location of the mobile device using the subset of records (Fig. 2, item 40, multiple location specific libraries where one is selected based on location; col. 4, lines 26-44; location-specific library is within [around] a location [col. 4, lines 39-43]);
- capturing a vocal expression of a speaker utilizing the mobile device (col. 4, lines 45-56; utterance is captured and recognized); and

- determining information related to the vocal expression based on comparing the grammar with the captured vocal expression (col. 4,lines 45-56; col. 5, lines 1-6).

Cohen teaches the use of location specific grammars (col. 4, lines 24-56), but Cohen does not specifically teach "**building a dynamic grammar** responsive to the determined coordinate location of the mobile device..." However, the examiner contends that this concept was well known in the art, as taught by Monaco.

In the same field of endeavor, Monaco teaches a method for creating modifiable and combinable speech objects in an interactive voice response system. Monaco's teachings include the creation of dynamic grammars in situations where the items to be recognized are not fixed (col. 9, lines 50-65; grammars can be used in any situation where the items to be recognized are not fixed and are created programmatically at runtime, col. 10, lines 51-67).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Cohen by specifically providing the support for dynamic grammars, as taught by Monaco, for the purpose of utilizing the location specific information provided by Cohen to build dynamic grammars because it is well known in the art at the time of invention that in any situation where the items to be recognized are not fixed (and possibly not initialized) this support can be generated dynamically (Monaco, col. 9, lines 57-60; col. 10, lines 60-64).

Regarding **claim 24**, Cohen in view of Monaco teaches everything claimed, as applied above (see claim23). In addition, Cohen teaches "wherein determining a

coordinate location of a mobile device communicating over the communication network comprises receiving the location of the mobile device from the communication network" (col. 4, lines 4-26; signals from the cellular transmission network).

Regarding **claim 25**, Cohen in view of Monaco teaches everything claimed, as applied above (see claim 23). In addition, Cohen teaches "wherein determining a coordinate location of a mobile device communicating over the communication network comprises receiving location information from the mobile device" (col. 4, lines 4-26, GPS within the device or keyboard entry).

Regarding **claim 26**, Cohen in view of Monaco teaches everything claimed, as applied above (see claim 23). In addition, Cohen teaches the operation of the device over a cellular telephone network where the network can be used to determine location (col. 4, lines 14-17), and Monaco teaches "wherein determining a coordinate location of a mobile device communicating over the communication network is performed by a first server and building a dynamic grammar in response to the determined location of the mobile device is performed by a second server different from the first server" (Fig. 1A, and 1B; col. 6, lines 5-25; the system can be implemented in a variety of ways).

Regarding **claim 27**, Cohen in view of Monaco teaches everything claimed, as applied above (see claim 25). In addition, Cohen teaches "wherein receiving location

information from the mobile device comprises receiving location information from the user of the mobile device" (col. 4, lines 4-26; keyboard entry is performed by the user).

Regarding **claim 28**, Cohen in view of Monaco teaches everything claimed, as applied above (see claim 23). In addition, Cohen teaches "providing information over the communication network to the mobile device related to a location identified based on the location of the mobile device" (col. 4, lines 4-26, cellular transmission system may be used to determine geographic location).

Regarding **claim 33**, Cohen in view of Monaco teaches everything claimed, as applied above (see claim 23). In addition, Cohen teaches "wherein building the dynamic grammar responsive to the determined coordinate location of the mobile device is also responsive to information provided by the user of the mobile device" (col. 4. lines 22-45; keyboard entry of location results in the retrieval of location-specific library).

Regarding **claim 34**, Cohen teaches a method for location-specific mobile speech recognition (abstract). Cohen's teachings include the following:

- determining a location of a mobile device communicating over the communication network (col. 4, lines 5-26; determine the geographic location);
- using the determined location to select a subset of records from a plurality of records; ... [a grammar] of information spacially related to the mobile devic location

based upon a distance around the determined location of the mobile device using the subset of records (Fig. 2, item 40, multiple location specific libraries; col. 4, lines 26-44; location-specific library is within [around] a location [col. 4, lines 39-43]);

- capturing a vocal expression of a speaker utilizing the mobile device (col. 4, lines 45-56; utterance is captured and recognized); and
- determining information related to the vocal expression based on comparing the grammar with the captured vocal expression (col. 4,lines 45-56; col. 5, lines 1-6).

Cohen teaches the use of location specific grammars representing street names and businesses within a geographic location (col. 4, lines 24-56), but Cohen does not specifically teach "building a dynamic grammar ..." However, the examiner contends that this concept was well known in the art, as taught by Monaco.

In the same field of endeavor, Monaco teaches a method for creating modifiable and combinable speech objects in an interactive voice response system. Monaco's teachings include the creation of dynamic grammars in situations where the items to be recognized are not fixed (col. 9, lines 50-65; grammars can be used in any situation where the items to be recognized are not fixed and are created programmatically at runtime, col. 10, lines 51-67).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Cohen by specifically providing the support for dynamic grammars, as taught by Monaco, for the purpose of utilizing the location specific information provided by Cohen to build dynamic grammars because it is well known in the art at the time of invention that in any situation where the items to be

recognized are not fixed (and possibly not initialized) this support can be generated dynamically (Monaco, col. 9, lines 57-60; col. 10, lines 60-64).

Regarding **claim 35**, this claim has limitations similar to claim 24 and is rejected for the same reasons.

Regarding **claim 36**, this claim has limitations similar to claim 25 and is rejected for the same reasons.

Regarding **claim 37**, this claim has limitations similar to claim 26 and is rejected for the same reasons.

Regarding **claim 38**, this claim has limitations similar to claim 27 and is rejected for the same reasons.

2. Claims 29-32 and 39-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cohen in view Monaco and further in view of Julia et al. (US Patent 7,036,128), hereinafter referred to as Julia.

Regarding **claim 29**, Cohen in view of Monaco teaches everything claimed, as applied above (see claim 28). But Cohen does not specifically teach "wherein the information provided over the communication network to the mobile device comprises

direction information." However, the examiner contends that this concept was well known in the art, as taught by Julia.

In the same field of endeavor, Julia discloses a mobile computing environment were information can be accessed from a variety of sources (abstract). Julia's teachings include access of direction information (Fig. 13, col. 32, lines 30-35, guides the car alone the chosen route; col. 32, lines 10-15, using speech).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Cohen by specifically providing the features, as taught by Julia, because it is well known in the art at the time of invention for the purpose of more convenient access to information using speech recognition (Julia, col. 2, lines 28-33).

Regarding **claim 30**, Cohen in view of Monaco teaches everything claimed, as applied above (see claim 28). But Cohen does not specifically teach "wherein the information provided over the communication network to the mobile device comprises map information." However, the examiner contends that this concept was well known in the art, as taught by Julia.

In the same field of endeavor, Julia discloses a mobile computing environment were information can be accessed from a variety of sources (abstract). Julia's teachings include access of direction information including the display of a map (Fig. 13, col. 32, lines 30-35, guides the car alone the chosen route; col. 32, lines 10-15, using speech).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Cohen by specifically providing the features, as taught by Julia, because it is well known in the art at the time of invention for the purpose of more convenient access to information using speech recognition (Julia, col. 2, lines 28-33).

Regarding **claim 31**, Cohen in view of Monaco teaches everything claimed, as applied above (see claim 28). But Cohen does not specifically teach "wherein the information provided over the communication network to the mobile device comprises address information." However, the examiner contends that this concept was well known in the art, as taught by Julia.

In the same field of endeavor, Julia discloses a mobile computing environment were information can be accessed from a variety of sources (abstract). Julia's teachings include access of direction information including address information (Fig. 13, col. 32, lines 10-67, location of nearest gas stations; col. 32, lines 10-15, using speech).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Cohen by specifically providing the features, as taught by Julia, because it is well known in the art at the time of invention for the purpose of more convenient access to information using speech recognition (Julia, col. 2, lines 28-33).

Regarding **claim 32**, Cohen in view of Monaco teaches everything claimed, as applied above (see claim 28). But Cohen does not specifically teach "establishing a network connection from the mobile device to the location identified based on the location of the mobile device." However, the examiner contends that this concept was well known in the art, as taught by Julia.

In the same field of endeavor, Julia discloses a mobile computing environment were information can be accessed from a variety of sources (abstract). Julia's teachings include the support from a communication center and access to technical information (Fig. 6, web agent; col. 9, lines 50-57, interaction with agents; col. 10, lines 5-17, access to services available over the Web; col. 32, lines 26-49, col. 32, line 65 through col. 33, line 10, e.g., documentation is available).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Cohen by specifically providing the features, as taught by Julia, because it is well known in the art at the time of invention for the purpose of more convenient access to information using speech recognition (Julia, col. 2, lines 28-33).

Regarding **claim 39**, Cohen teaches a method for location-specific mobile speech recognition (abstract). Cohen's teachings include the following:

- determining a location of a mobile device communicating over the communication network (col. 4, lines 5-26; determine the geographic location);

- using the determined location to select a subset of records from a plurality of records; ... [a grammar] in response to the determined location of the mobile device using the subset of records (Fig. 2, item 40, multiple location specific libraries; col. 4, lines 26-44);
- determining information related to the vocal expression based on comparing the grammar with the captured vocal expression (col. 4,lines 45-56; col. 5, lines 1-6).

Cohen teaches the use of location specific grammars (col. 4, lines 24-56), but Cohen does not specifically teach "**building a dynamic grammar** in response to the determined location of the mobile device ...." However, the examiner contends that this concept was well known in the art, as taught by Monaco.

In the same field of endeavor, Monaco teaches a method for creating modifiable and combinable speech objects in an interactive voice response system. Monaco's teachings include the creation of dynamic grammars in situations where the items to be recognized are not fixed (col. 9, lines 50-65; grammars can be used in any situation where the items to be recognized are not fixed and are created programmatically at runtime, col. 10, lines 51-67).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Cohen by specifically providing the support for dynamic grammars, as taught by Monaco, for the purpose of utilizing the location specific information provided by Cohen to build dynamic grammars because it is well known in the art at the time of invention that in any situation where the items to be

recognized are not fixed (and possibly not initialized) this support can be generated dynamically (Monaco, col. 9, lines 57-60; col. 10, lines 60-64).

Furthermore, Cohen does not specifically teach the following: "using the determined location of the mobile device to generate a user prompt; transmitting the user prompt to the mobile device; capturing a vocal expression of a speaker utilizing the mobile device in response to the user prompt." However, the examiner contends that these concepts well known in the art, as taught by Julia.

In the same field of endeavor, Julia discloses a mobile computing environment were information can be accessed from a variety of sources (abstract). Julia's teachings include interacting with the navigation system which includes location specific prompts transmitted to the mobile device supported by speech recognition (col. 26, lines 30-57, system interacts (i.e., prompts with responses) with the user using location specific information (e.g., Show me information near here); col. 31, lines 10-67; using speech, request for directions; col. 34, lines 11-25, uses speech recognition),

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Cohen by specifically providing the features, as taught by Julia, because it is well known in the art at the time of invention for the purpose of more convenient access to information while traveling using speech recognition (Julia, col. 2, lines 28-33).

Regarding **claim 40**, Cohen in view of Monaco and Julia teaches everything claimed, as applied above (see claim 39). In addition, Julia teaches "wherein the

prompt is a request for secondary information" (col. 31, lines 10-67, where queries are performed to access additional information).

Regarding **claim 41**, Cohen in view of Monaco and Julia teaches everything claimed, as applied above (see claim 39). In addition, Cohen teaches "wherein determining a location of a mobile device communicating over the communication network comprises receiving the location of the mobile device from the communication network. (col. 4, lines 4-26; signals from the cellular transmission network).

Regarding **claim 42**, Cohen in view of Monaco and Julia teaches everything claimed, as applied above (see claim 39). In addition, Cohen teaches "wherein determining a location of a mobile device communicating over the communication network comprises receiving location information from the mobile device" (col. 4, lines 4-26, GPS within the device or keyboard entry).

Regarding **claim 43**, Cohen in view of Monaco Julia teaches everything claimed, as applied above (see claim 40). In addition, Julia teaches "wherein the secondary information is secondary address information" (col. 31, lines 35-46, gas stations in vicinity; lines 47-67, campus location data; open agent architecture can access additional information).

Response to Arguments

3. Applicant's arguments filed 3/5/07 have been fully considered but they are not persuasive.

Rejection of Claim 23 Under 35 U.S.C. 103

4. Applicant asserts on page 9:

> Cohen does not teach dynamic grammars and Monaco's teaching with regard to "dynamic grammars" is that they are "created through a text or voice interface and then inserted at a fixed location in an existing grammar at runtime." (See, Monaco, Column 1 O, Lines 52-67).

Cohen teaches the use of location specific grammars where the location information can be used to reduce the perplexity of speech recognition (Fig, 2, col. 4, lines 24-56), and Monaco teaches the creation of dynamic grammars that can be customized (used for any situation where the items to be recognized are not fixed, e.g., location specific information) and created at runtime (col. 10, lines 53-67). Thus, the combination of Cohen in view of Monaco teaches, *inter alia*, "building a dynamic grammar responsive to determined coordinated location ...".

Rejection of Claim 34 Under 35 U.S.C. 103

5. Applicant asserts on page 10:

> As stated above, Cohen does not teach dynamic grammars at all. (See, Office Action, Page 3). Monaco is directed to one of two types of grammars as described in subsection B, neither of which teaches the limitations shown above. Furthermore, claim 34 teaches that the dynamic grammar is built, *"based upon a distance around the determined location*

of the mobile device." Monaco has no teaching whatsoever about using a distance around a determined location of a mobile device to build a dynamic grammar. ....

See previous arguments. Cohen also teaches the use of a location-specific library which includes speech templates representative of street names within a geographic location.

Rejection of Claim 39 Under 35 U.S.C. 103

See previous arguments.

Rejection of Claims 24-33, 35-38, and 40-43 Under 35 U.S.C. 103

See previous arguments.

Citation of Pertinent Art

6. The following prior art made of record but not relied upon is considered pertinent to the applicant's disclosure:

- Wong (US Patent 5,905,773) teaches the reduction of speech recognition vocabulary perplexity by dynamically selecting acoustic models including the use of vocabularies associated with the geographic location of a user.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to V. Paul Harper whose telephone number is (571) 272-7605. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Edouard can be reached on (571) 272-7603. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

4/5/2007

VPH

V. PAUL HARPER
PRIMARY PATENT EXAMINER

V. Paul Harper